

Appl. No.10/816,302

Amended December 23<sup>rd</sup>, 2005

Reply to Office Action of 26 Nov. 2005

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converters are immediately associated with a wide range of problems generally assumed to be inherited from these earlier and far inferior systems. Further, as the old PWM schemes were implemented at lower frequencies than would be typical, a wide range of noise and filtering problems were associated with their use.

#### **5. Lack of Implementation**

Commercial systems using oversampled DACs in signal processing applications are well known (e.g. the ubiquitous "one bit DAC" of consumer audio gear) and date back at least to the introduction of Philip's co-introduction of the audio CD in 1982. These applications use low-cost and yet very high performance DACs. Motor control servo systems using DACs are also in need of cost-effective, high performance converters, yet to date neither the patent literature nor searches of commercial and academic sources have yielded any indication that this combination has previously been proposed. This leads to the conclusion that this combination is not obvious to those skilled in the art.

The examiner has also suggested a combination of Bibik and Contreras (6,154,017) to argue the obviousness of the software implementation. The applicants contend that being Bibik not applicable for the above mentioned reasons, the software implementation of oversampling DACs for motor control applications is not obvious to those skilled in the art.

**Therefore the applicants submit that Claims 7 through 18 are not obvious, and are therefore allowable over the cited references and respectfully solicit reconsideration and allowance.**

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### **Conclusions**

**For all the above reasons, applicants submit that the specifications and claims are now in proper form, and that the claims all define patentably over the prior art. Therefore they submit that this application is now in condition for allowance, which action they respectfully solicit.**

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**Conditional Request For Constructive Assistance**

Applicants have amended the claims of this application so that they are proper, definite, and define novel structure which is also unobvious. If, for any reason this application is not believed to be in full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

**Carl Sawtell****Paolo Menegoli**